



شبكة المعلومات الجامعية

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شبكة المعلومات الجامعية  
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# شبكة المعلومات الجامعية التوثيق الالكتروني والميكرو فيلم



شبكة المعلومات الجامعية

# جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

## قسم

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2013

**EVALUATION OF THE RESULTS OF SURGICAL  
TREATMENT OF UNUNITED FRACTURE  
SCAPHOID USING A DISTO-PROXIMAL  
CORTICAL BONE PEG**

**Thesis**

*Submitted for Partial fulfillment of Master degree in*

**"Orthopaedic Surgery"**

*By*

**Aly Mahmoud Aly Emran**  
(M.B.B.Ch.,)

**Supervisors**

*Prof. Dr.*

**MOSTAFA HOSSIEN HEGAZY**

Professor of Orthopaedic Surgery  
Faculty of Medicine  
Tanta University

*Prof. Dr*

**MOHEB AHMED FADEL**

Assistant Professor of Orthopaedic Surgery  
Faculty of Medicine  
Tanta University

*Dr.*

**TAREK AHMED EL-SHEIKH**

Lecturer of Orthopaedic Surgery  
Faculty of Medicine  
Tanta University

**FACULTY OF MEDICINE  
TANTA UNIVERSITY**

**2005**

[illegible]

صدق الله العظيم  
(آل عمران آیہ ۸۶)

First , and for most thanks to **ALLAH**,  
the most merciful, gracious and  
compassionate, to **ALLAH**  
everything in life is resumed.

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# ***INTRODUCTION***

## INTRODUCTION

Fractures of the scaphoid bone are the most common fractures of the carpus, and second in occurrence among fractures of the wrist. The diagnosis and treatment are not simple. Conservative treatment may lead to uneventful union, so, an operation may be needed in certain cases whether primarily or for treating nonunion.<sup>[1]</sup>

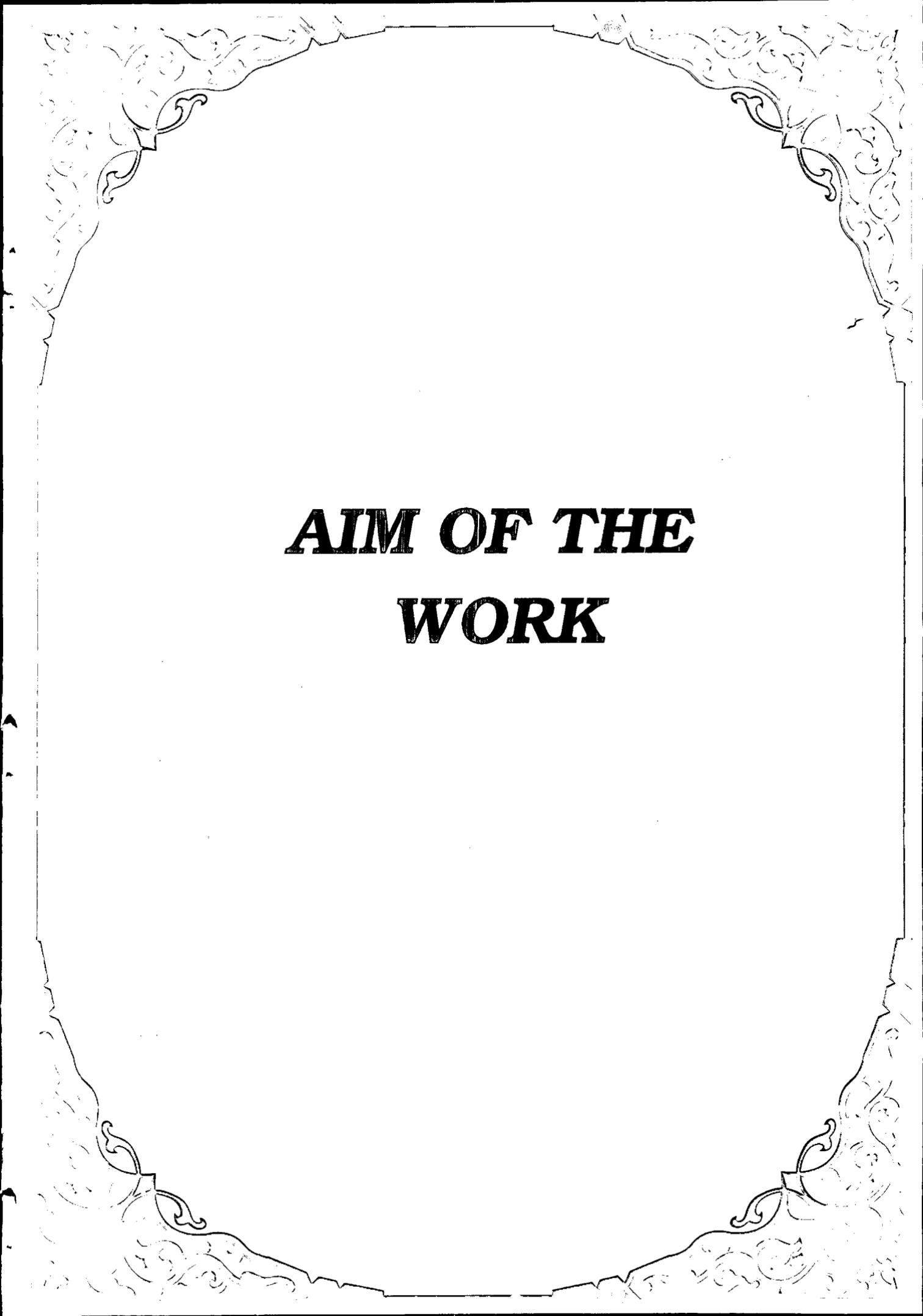
The initial goal in treating fracture scaphoid is accurate diagnosis using clinical evaluation and available imaging modalities. Union is the subsequent objective with a trend towards restoration of normal scaphoid anatomy. Malunion or nonunion may lead to unacceptable results and patient dissatisfaction.<sup>(2)</sup>

If fracture scaphoid is neglected or misdiagnosed, nonunion will almost inevitably progress to radiographic and symptomatic osteoarthritis of the wrist. This may lead to subsequent morbidity and life long disability especially in young males in which the fracture scaphoid is more common.<sup>(1)</sup>

Five percent of scaphoid fractures fail to unite for a variety of reasons. The sites of the nonunion are 70% in the waist of the bone, 20% through the proximal third and 10% in the distal scaphoid tubercle.<sup>(3, 4)</sup>

The currently recommended treatment of nonunion fracture scaphoid with bone grafting is not a new concept. Adams and Leonard in 1928 reported using a cortical bone peg in the scaphoid<sup>(5)</sup>. Six years later, Murray used cortical bone peg driven across the nonunion site<sup>(6)</sup>. In 1936, Matti described resects of the bone at the nonunion site of the scaphoid

fracture through dorsal approach and filling the defect with cancellous bone <sup>(7)</sup>. Russe, in 1960 inserted a cortico-cancellous bone graft across the nonunion defect and packed the surrounding area with cancellous bone. This was done through volar approach. The technique of bone grafting a scaphoid nonunion with a cortico-cancellous graft through volar approach is usually referred to as the Matti-Russe procedure. <sup>(4)</sup>



***AIM OF THE  
WORK***

## **AIM OF THE WORK**

**T**he aim of this study is to evaluate the results of surgical treatment of ununited fracture of the scaphoid bone using cortical bone peg inserted from distal to proximal pole of scaphoid bone without interference with the site of nonunion.